# Periscope.

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## ANATOMY.

106. Ueber den Kern des Nervus accessorius (Concerning the Nucleus of the Accessory Nerve). Emil Bunzl-Federn (Monatsschrift für Psychiatrie und Neurologie, 2, 1897, p. 427).

In a number of rabbits the external branch of the accessorius was cut in the neck near its exit from the jugular foramen; in others the roots of the accessorius were cut within the spinal canal. The animals were killed fourteen days later, examination of the larynx having first been made. The movements of the vocal cords were normal. The method of Nissl was employed, as by this stain degenerative changes within a cell are seen soon after its axis cylinder is cut.

Bunzl-Federn finds that the cells of the accessorius nucleus begin in the lateral horn near its base just above the exit of the fifth cervical nerve, and soon assume a position on the lateral and posterior border of the horn; that higher they form two groups more anteriorly located, one of which is more towards the centre; and that still higher the median group disappears and degenerated cells are present in the anterior part of the anterior horn, which later take a more central position within the horn. Degenerated cells were only noticed on the side of the operation. The accessorius nucleus ends just below the lowest part of the hypoglossus nucleus, and extends, therefore, far into the oblongata. Most of the spinal portion and the lowest portion of the oblongatal roots of the accessorius pass into the external branch of this nerve, but a few pass into the vagus. The uppermost fibres of the accessorius nucleus of the oblongata enter the internal branch of the accessorius and thus form part of the vagus. The accessorius, however, has nothing to do with the motor innervation of the larynx, for the vocal cords were not affected after the accessorius roots had been cut, and only in one of many cases was degeneration of accessorius cells found after the recurrent laryngeal nerve had been cut.

Spiller.

107. Ueber die Kerne der mit den Augenbewegungen in Beziehung stehenden Nerven und über die Verbindung derselben unter einander (On the Nuclei of the Motor Nerves of the Eyes and their Relations to one another). W. von Bechterew (Arch. f. Anat. u. Entwicklungsgeschichte, 10, 1897, Hefte 5 u. 6).

Bechterew claims four nuclei for the oculo-motorius. The main nucleus is dorsal, situated just beneath the anterior corpora quadrigemina and is paired. There is an unpaired median nucleus, an anterior mesial accessory nucleus and a posterior lateral nucleus. He claims that the upper nucleus, described by Darkschewitsch as the nucleus centralis posticus nervi oculomotorii is in reality a part of the trochlearis.

The different nuclei of the oculo-motorius have numerous association fibres, and he traces fibres of communication between the nuclei of the abducens and those of the oculo-motorius.

JELLIFFE.

108. The Anatomical Connections of the Frontal Lobes Joukowski (Revue de Psych., Russian), 1897, Rev. Neur.

The researches of the author were made by the method of extirpation and the study of secondary degenerations. The following conclusions are given.

The frontal lobes are in immediate connection,

1. With the convolutions of the cingulum and the subcallosal fibres by means of fibres of different lengths.
2. With the anterior region of the optic thalamus by means of fibres which pass in the internal capsule.
3. With the substantia nigra, notably its internal portions.
4. With the anterior part of the protuberance, by means of the "fronto-protuberantial" fibres which pass in the internal parts of the cerebral peduncles.
5. Connection between the two frontal lobes is afforded by fibres which pass in the corpus callosum at its anterior end.
6. In the rabbit the connections between the two frontal lobes are reinforced by a fascicle of fibres which passes in the internal capsule and the anterior commissure.
7. There exists a connection between the gyrus fornicatus and the fornix, by means of fibres passing from the former through the corpus callosum to the swelling of the fornix.

VOGEL.

109. On a Modification of the Sublimate Method for the Delineation of Nervous Tissues W. Bevan Lewis (Edinburgh Medical Journal, August, 1897).

The author describes the following:—Pieces of cortex are hardened for from two to three months in Cox's fluid,

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| 5 per cent. solution potass. bichrom. | 20 |
| 5 per cent. solution hydrarg. bichlor. | 20 |
| 5 per cent. solution potass. chromate | 16 |
| Water | 30-40 |

They are then washed in alcohol for a half hour, mounted and cut. The sections are brought upon a slide, a drop or two of liq. potassae is added to them, and immediately washed off by inclining the slide, and allowing water from a pipette to flow over the specimen. They are then dehydrated in alcohol, cleared in oil of cloves, and mounted in balsam as usual. The addition of the potash has the effect of bringing out the tissue elements with intense blackness, and reveals the finest details of structure more surely and with greater clearness than the modified sublimate or chrome-silver methods.

ALLEN.

110. On the Nature of the Wiegert-Pal Method. J. S. Bolton (Jour. of Anat. and Physiol., 32, 1898, p. 247).

The author presents a very valuable discussion of the whys and wherefores of the Weigert-Pal methods of staining, with several